

## A Novel Approach to Assess Wait-Times to Rheumatologists

### Authors:

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### Abstract:

**Background/Purpose:** Previous studies quantifying delays in assessment of patients by rheumatologists have studied patients from rheumatology clinics and thus include all patients who ultimately had access to rheumatologists. Our study estimates overall wait times for initial rheumatology consultations for patients referred by their primary care physician.

**Methods:** We employed a novel approach to identify first-time rheumatology referrals from the primary care Electronic Medical Record Administrative data Linked Database (EMRALD), representing comprehensive EMR data from 168 primary care physicians across Ontario, Canada (32 rural, 39 suburban and 97 urban physicians). We randomly sampled patients with rheumatology referral letters and performed linkage with administrative data to retrospectively confirm that patients had no prior rheumatologist assessments. Using a standardized data abstraction tool, the entire patient medical record was reviewed to categorize each patient according to their diagnosis: systemic inflammatory conditions, mechanical/degenerative/arthritis conditions, chronic pain, regional musculoskeletal (MSK) syndromes, osteoporosis/osteopathies, and other (e.g., abnormal diagnostic tests). Administrative data were then used to identify the date of the first rheumatologist visit subsequent to the date recorded on the referral identified in the EMR. The time in days from the date the first referral letter was sent to the date of the first rheumatologist visit was determined overall and for each diagnostic category.

**Results:** Among 1086 patients with first-time referrals, 99% of referrals analyzed occurred between 2006 and 2013. The majority of referrals were for mechanical/degenerative conditions (34%) and systemic inflammatory conditions (30%). Overall, 36% of patients were seen by a rheumatologist within 6 weeks from referral and 67% within 3 months. 68 (6%) patients were waiting longer than 12 months to be seen (Table). The average wait time to see a rheumatologist for any condition was 142 days (median 61) post-referral. For patients with systemic inflammatory conditions, the median time to be seen was 47 days (interquartile range 18-97). The median wait times for individuals with conditions deemed nonurgent (osteoarthritis, chronic pain) were roughly 2 weeks longer.

**Conclusion:** Using EMRs from a representative sample of Ontario primary care practices revealed longer wait times to see a rheumatologist than previous Canadian reports that sampled patients from urban rheumatology clinics. 33% of patients were still waiting >3 months to be seen, exceeding current Canadian recommendations. Individuals with systemic inflammatory conditions were seen earlier compared to other types of referrals. An analysis of wait times along each component of the care pathway is currently underway.